

Anglophone ecological journals. We observe that non-language factors, such as degree of training and experience in scientific writing, geographical location, seniority, or even number and type of collaborators, are more powerful determinants of publication success regardless of linguistic background [4]. It will be easier for those trained in an Anglophone country, which notably includes large numbers of Clavero's NoNES, to write and publish in English compared with those who have not had the opportunity to study abroad. It is also likely to be easier for a Scandinavian scholar to get quality training in scientific writing in English than for most developing-country scientists (even including Clavero's NES) based in their home country. However, this is not to dismiss the challenges that exist.

Language biases are certainly present in peer-review processes. For example, a recent study [5] found that 'open' reviews discriminated more against accepting articles from non-English-speaking countries than did double-blind reviews. Whether this reflects 'linguistic precision' (which Clavero suggests is hard for those with a non-Anglophone heritage), the quality of the science, or some other factor, is unknown. However, our own experiences (two of us are long-standing non-Anglophone members of the editorial boards of international, Anglophone ecological journals) indicates that, as long as a text is comprehensible, the standard of English language writing seldom has a role in deciding whether a submitted paper should be accepted. We would be alert to any such discrimination. In fact, there is documented evidence of increased tolerance from Anglophone journal editors in this regard [2]. We agree with Clavero that publishers should invest in providing adequate editorial advice and guidance. However, there are many ecological journals that might not be able to provide this service as many are the product of professional associations with limited funding *vis à vis* commercial publishers. Yet, the overall burden should not fall on the editorial teams of the journals as it is not good use of either an editor's or reviewer's time. So, how should the field move forward?

Academic ecologists should emulate initiatives that teach English-based scientific writing and literacy to medical doctors and scientists based in their home country.

There are successful examples from Brazil, China, Croatia, Holland, Iran, Japan and Venezuela [6], and many within the medical sciences invest heavily in such initiatives [7]. Clavero's proposal for journals to offer grants for language editing is another way for making progress, but we fear that this could create a perverse incentive to filter prospective articles owing to limited funding. Ensuring the geographical and cultural breadth of editorial boards is also important.

To conclude, we suggest that 'linguistic injustice' is not as severe as Clavero implies and that many solutions are already available, notably intensive training in scientific writing. We think that the NES–NoNES dichotomy should also be dropped. Perhaps a more suitable term, if needed, is (authors writing in) English as an International Language (EIL) [7]. This would help underline the fact that excellent linguistic skills are not a pre-requisite for article acceptance. Finally, the top ecological research journals will continue to reject most of the manuscripts submitted to them, and authors will continue to believe that they have been treated unfairly. We suggest that those who, similar to Clavero, believe that the system needs to be changed should volunteer to become acting editors and help ensure the fairness that they seek.

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## Letters

# Conservation science must engender hope to succeed

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Conservation biology has an explicit political objective: the conservation of biodiversity. Thus, conservation biologists must not only do good science, but also present that science in a way that furthers that objective. Much excellent research has emphasised the severity of threats facing

biodiversity [1]. However, relentless communication of an impending mass extinction is, self evidently, having insufficient impact on politicians, policy makers and the public, and could eventually even be counterproductive for improved conservation. Instead, we contend that there is ample evidence from other disciplines, such as medicine [2], public health [3] and road safety [4], to show that

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achieving political support and lasting behavioural change requires 'bad news' to be balanced by empowerment. Berating people about biodiversity decline ignores fundamental human behaviours. In broader society, people avoid delivery of bad news because it reflects badly on the deliverer [5]. Indeed, denial of major biodiversity loss might intensify in the wider public, even as scientific evidence accumulates, because of the way in which people respond to threats of this nature [6].

Delivering bad conservation news seems to earn status among conservationists, not unlike an underclass seeking status within its own subculture, driving away many who might otherwise support its tenets [7]. But conservation cannot afford to be a separate subculture. A surfeit of despair and fear engenders disempowerment, denial and a failure to act. Conversely, change and political support are achieved through carefully targeted messages that empower people. Such a plea is not to engender misplaced optimism in the face of perilous odds [8], but rather to promote hope, demonstrate what can be achieved and how to achieve it. Researchers need to provide the science not only for the campaigns lamenting environmental loss, but also, most importantly, for those celebrating the effectiveness of conservation.

Although we readily acknowledge the immense challenges facing global biodiversity [9], some conservation achievements of the last half century are extraordinary and inspirational. For instance, South Korea was almost denuded after the Korean War, but now >63% of the country is forested [10]. In Africa, wildlife populations are increasing in Namibia and there has been a major expansion of Kruger National Park [11]. In Iraq, the local population and Iraqi engineers started to re-flood the Tigris–Euphrates marshes within days of Saddam Hussein's defeat [12]. Other achievements are more institutional, such as the Bird Directive of the European Union, followed by its Habitat Directive, with all that entails. For all its imperfections, the US Endangered Species Act of 1973 has been instrumental in slowing species loss. In Australia, large-scale land clearing has been halted and most of the rainforest in the country is contained within World Heritage sites. The largest marine protected area in the world is in one of the poorest nations in the world, Kiribati. Finally, the Antarctic Treaty has operated successfully for over 50 years and over 14% of the land area on the globe (18 million km<sup>2</sup>), is (at least nominally) set aside for conservation.

Although many non-government organisations advocating conservation understand the need to demonstrate that conservation investments work, as do governments for which behavioural change is an imperative, both groups need conservation scientists to give authority and credibility to their arguments. As examples of potential action to

communicate conservation success more widely, as well as to garner greater support for conservation, we make the following recommendations. (i) Hold a series of international conferences (with published proceedings) devoted entirely to describing successful conservation programs that have led to positive outcomes. (ii) Instigate journal editorial policies that promote the publication of papers that highlight successful conservation actions, as well as special issues on approaches leading to positive policy change and on-ground achievement. Such journal policies are required because we suspect that there is currently a bias towards citations of 'bad news' papers. (iii) Complete interdisciplinary research on the factors underpinning effective, successful and sustained conservation, in multiple settings, and at multiple scales, and then use this research to boost increased future conservation effectiveness.

Given that pessimism is as infectious as enthusiasm, a failure to acknowledge the major conservation achievements to date could mean that prophecies of doom might become self fulfilling. Negative stories not counterbalanced with some positive ones might even increase denial of the science underpinning conservation, as has happened with climate change [13]. Hope is vital to the prospects for biodiversity conservation in coming decades.

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